

Institutions and Development

Political Economics: Week 6, Part 1

Giacomo A. M. Ponzetto

CREI – UPF – Barcelona GSE

12th and 15th February 2010

The Mystery of Economic Growth

Economic development varies enormously across countries. Why?

① Capital accumulation (Solow 1956)

- ▶ Decreasing marginal productivity: no growth in steady state.
- ▶ Different rates of return and capital-flow puzzle (Lucas 1990)
- ▶ Conditional, but not unconditional convergence (Barro and Sala-i-Martin 1992)

② Total factor productivity (Solow 1957)

- ▶ TFP differences account for over 60% of the cross-country variation in income levels, rising to almost 90% for growth rates (Klenow and Rodríguez-Clare 1997).
- ▶ Higher productivity induces investment and capital accumulation.

③ Innovation (Romer 1990)

- ▶ Endogenous growth from R&D.
- ▶ International knowledge spillovers tend to generate convergence.

Institutions

North (1981):

a set of rules, compliance procedures, and moral and ethical behavioral norms designed to constrain the behavior of individuals in the interests of maximizing the wealth or utility of principals.

Concrete examples:

- Constitutional rules: electoral system, form of government.
- Legal system: enforcement of contracts and legal rules.
- Government bureaucracy: regulation.

Related but not always included:

- Culture: trust, shared beliefs, social norms.
- Organizations: firms, clubs, associations.

Economic Analysis of Institutions

The New Institutional Economics:

Its goal is to explain what institutions are, how they arise, what purposes they serve, how they change and how – if at all – they should be reformed.

- Ronald Coase, Douglass North, Oliver Williamson, ...
- An interdisciplinary analysis using mainly the tools of economics, but also drawing upon history, law, organization theory, political science, sociology – all the social sciences.
- A rapidly growing research agenda, both empirical and theoretical.

Increasingly mainstream ideas:

- Elinor Ostrom and Oliver Williamson, 2009 Nobel laureates.
- Work by scholars who do not identify with the label.

Institutions, Property Rights, and Development

- Basic intuition:

Protection of property rights

⇒ Investment in physical capital

⇒ Economic growth.

- Broader view of investment: capital accumulation, education, knowledge creation and diffusion, innovation.
- Broader view of the rule of law: enforcement of contracts, freedom from arbitrary constraints.
- Protection of individuals from each other and from the government: a trade-off between *disorder* and *dictatorship*.
- Djankov, Glaeser, La Porta, Lopez-de-Silanes, and Shleifer (2004):

private orderings, private litigation, regulation, and state ownership, can be viewed as points on the institutional possibility frontier, ranked in terms of increasing state powers.

Smith (1776): The Wealth of Nations, Book II, Ch. 1

In all countries where there is tolerable security, every man of common understanding will endeavour to employ whatever stock he can command in procuring either present enjoyment or future profit. ... A man must be perfectly crazy who, where there is tolerable security, does not employ all the stock which he commands ...

In those unfortunate countries, indeed, where men are continually afraid of the violence of their superiors, they frequently bury and conceal a great part of their stock, ... in case of their being threatened with any of those disasters to which they consider themselves as at all times exposed. This is said to be a common practice in Turkey, in Indostan, and, I believe, in most other governments of Asia. It seems to have been a common practice among our ancestors during the violence of the feudal government.

Montesquieu (1748): The Spirit of Laws, Book XX, § 4

[T]he grand enterprises of merchants are always necessarily connected with the affairs of the public. But, in monarchies, these public affairs give as much distrust to the merchants as in free states they appear to give safety. Great enterprises, therefore, in commerce are not for monarchical, but for republican, governments.

In short, an opinion of greater certainty, as to the possession of property in these states, makes them undertake everything. ... [T]hinking themselves sure of what they have already acquired, they boldly expose it in order to acquire more ...

With regard to a despotic state, there is no occasion to mention it. A general rule: A nation in slavery labours more to preserve than to acquire; a free nation, more to acquire than to preserve.

Princes and Merchants

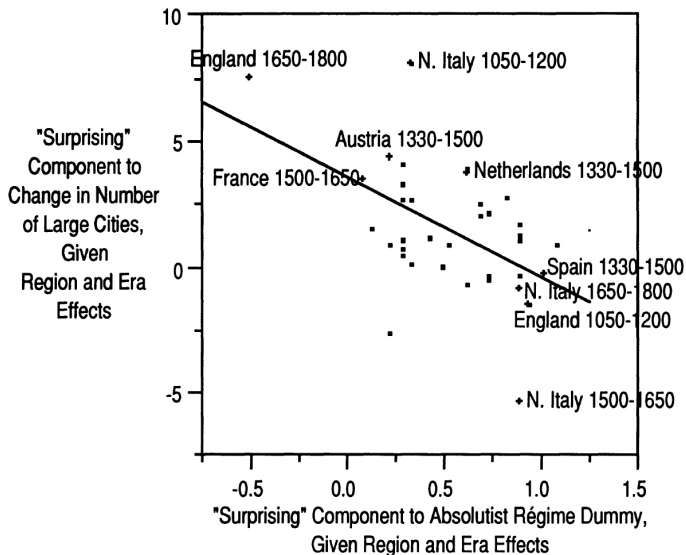
De Long and Shleifer (1993) look at Europe, from 1050 to 1800.

- Data points: 9 regions based on 1914 boundaries, over 150-year periods.
- Outcome: growth in the number and population of large cities.
 - ▶ Large cities required agricultural surplus and were centres of commerce.
- Regressor: regime type.
 - 1 Absolutist states in which the prince's will is law.
 - 2 Non-absolutist states: merchant oligarchies; feudal monarchies with powerful vassals.
- Controls: region and era fixed effects.
- An absolutist prince reduces the growth of population in cities of more than 30,000 by nearly 180,000 people per century, and the number of such cities by slightly over two.

Classification of Western European Regimes

Region	1050–1200	1200–1330	1330–1500	1500–1650	1650–1800
Southern Italy	Prince (Norman d'Haute- villes)	Prince (Hohenstaufens and Angevins)	Prince (Aragonese)	Prince (Habsburgs)	Prince (Habsburgs)
Northern Italy	Free (Investiture Struggle)	Free (Republics)	Free (Republics)	Prince (Habsburg domina- tion)	Prince (Habsburg domina- tion)
Austria-Bohemia	Free (feudal)	Free (constitution)	Free (constitution)	Prince (Habsburgs)	Prince (Habsburgs)
Germany	Prince (Medieval empire)	Prince (anarchy: Great Inter- regnum)	Prince (petty despots)	Prince (petty despots)	Prince (petty despots)
Netherlands	Free (feudal)	Free (constitution)	Free (constitution)	Free (Dutch republic)	Free (Dutch republic)
Belgium	Free (feudal)	Free (constitution)	Free (constitution)	Prince (Habsburgs)	Prince (Habsburgs)
England	Prince (Normans)	Prince (Angevin empire)	Prince (Wars of Roses)	Prince (Tudors)	Free (constitution)
France	Free (feudal)	Free (feudal)	Free (Hundred Years' War)	Free (religious strife)	Prince (Bourbons)
Spain	Free (feudal)	Free (constitution)	Free (constitution)	Prince (Habsburgs)	Prince (Bourbons)

Partial Scatter of City Growth Against Absolutism

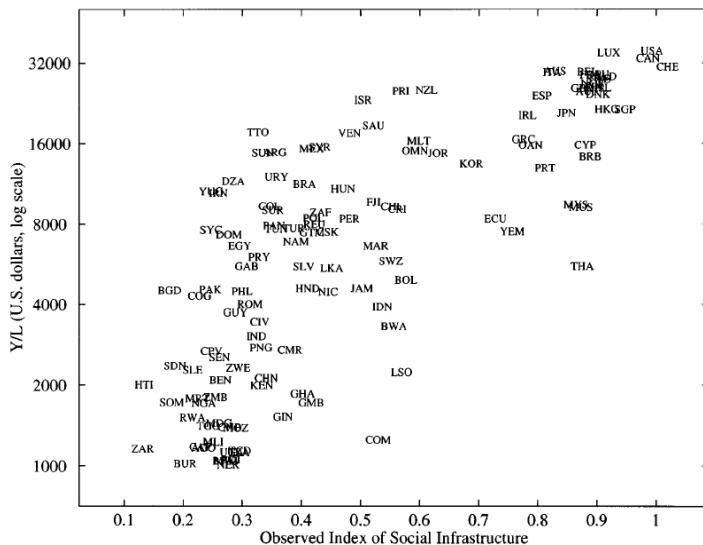


The Productivity of Nations

Hall and Jones (1999) look at 127 countries in the late 1980s.

- The top five countries have 31.7 times the output per worker of the lowest five; capital intensity and human capital contribute factors of 1.8 and 2.2 respectively, productivity 8.3.
- Explain productivity with *social infrastructure*:
 - 1 An index of government antidiversion policies:
 - ★ law and order,
 - ★ bureaucratic quality,
 - ★ corruption,
 - ★ risk of expropriation,
 - ★ government repudiation of contracts.
 - 2 Sachs–Warner binary index of market openness:
 - ★ nontariff barrier coverage ratio $< 40\%$,
 - ★ average tariff rate $< 40\%$,
 - ★ black-market premium $< 20\%$,
 - ★ no government monopoly of exports,
 - ★ not a socialist country.

Social Infrastructure and Output per Worker



Endogenous Social Infrastructure

IV based on Western European influence

- ① Distance from the equator.
 - ② Predicted trade share from the Frankel–Romer gravity model using only population and geography.
 - ③ Fraction of the population speaking English as a mother tongue.
 - ④ Fraction of the population speaking another Western European language as a mother tongue.
- The instruments are powerful, but are they exogenous?
 - Different interpretations of latitude (Sachs: tropical underdevelopment).
 - An early paper, but a lasting problem.

Social Infrastructure and Output per Worker: IV

BASIC RESULTS FOR OUTPUT PER WORKER

$$\log Y/L = \alpha + \beta \tilde{S} + \tilde{\epsilon}$$

Specification	Social infrastructure	OverID test <i>p</i> -value test result	Coeff test <i>p</i> -value test result	$\hat{\sigma}_{\tilde{\epsilon}}$
1. Main specification	5.1432 (.508)	.256 Accept	.812 Accept	.840
<i>Alternative specifications to check robustness</i>				
2. Instruments:	4.998	.208	.155	.821
Distance, Frankel-Romer	(.567)	Accept	Accept	
3. No imputed data	5.323	.243	.905	.889
79 countries	(.607)	Accept	Accept	
4. OLS	3.289 (.212)	—	.002 Reject	.700

The coefficient on Social Infrastructure reflects the change in log output per worker associated with a one-unit increase in measured social infrastructure. For example, the coefficient of 5.14 means that a difference of .01 in our measure of social infrastructure is associated with a 5.14 percent difference in output per worker. Standard errors are computed using a bootstrap method, as described in the text. The main specification uses distance from the equator, the Frankel-Romer instrument, the fraction of the population speaking English at birth, and the fraction of the population speaking a Western European language at birth as instruments. The OverID test column reports the result of testing the overidentifying restrictions, and the Coeff test reports the result of testing for the equality of the coefficients on the *GADP* policy index variable and the openness variable. The standard deviation of $\log Y/L$ is 1.078.